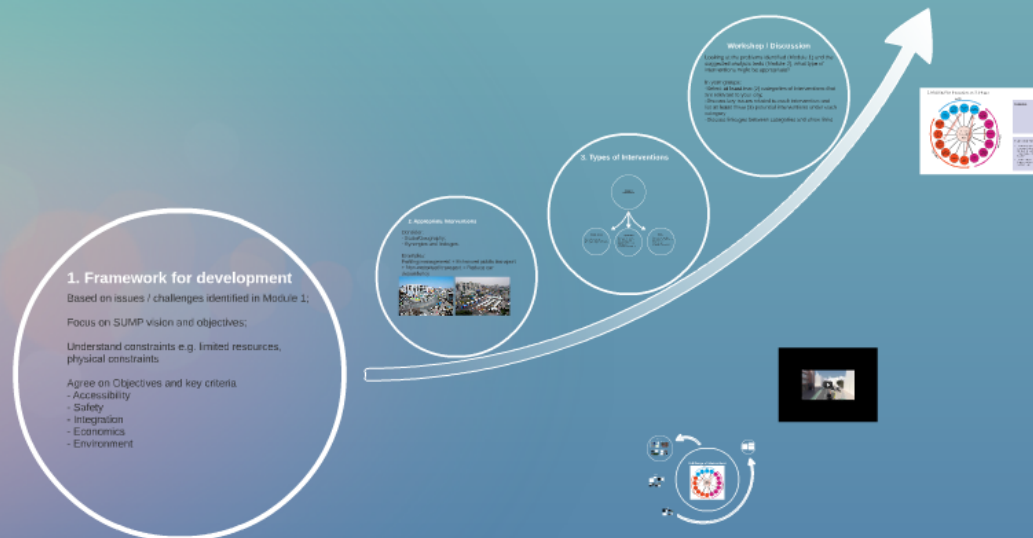


Urban Mobility Workshop
Constanta / Brasov / Cluj-Napoca
May 2014



Module 3: Intervention Development

Urban Mobility Workshop
Constanta / Brasov / Cluj-Napoca
May 2014

ARUP

1. Framework for development

Based on issues / challenges identified in Module 1;

Focus on SUMP vision and objectives;

Understand constraints e.g. limited resources,
physical constraints

Agree on Objectives and key criteria

- Accessibility
- Safety
- Integration
- Economics
- Environment



2. Appropriate Interventions

Consider:

- Scale/Geography;
- Synergies and linkages.

Examples:

Parking management + Enhanced public transport
+ Non-motorised transport = Reduce car
dependency



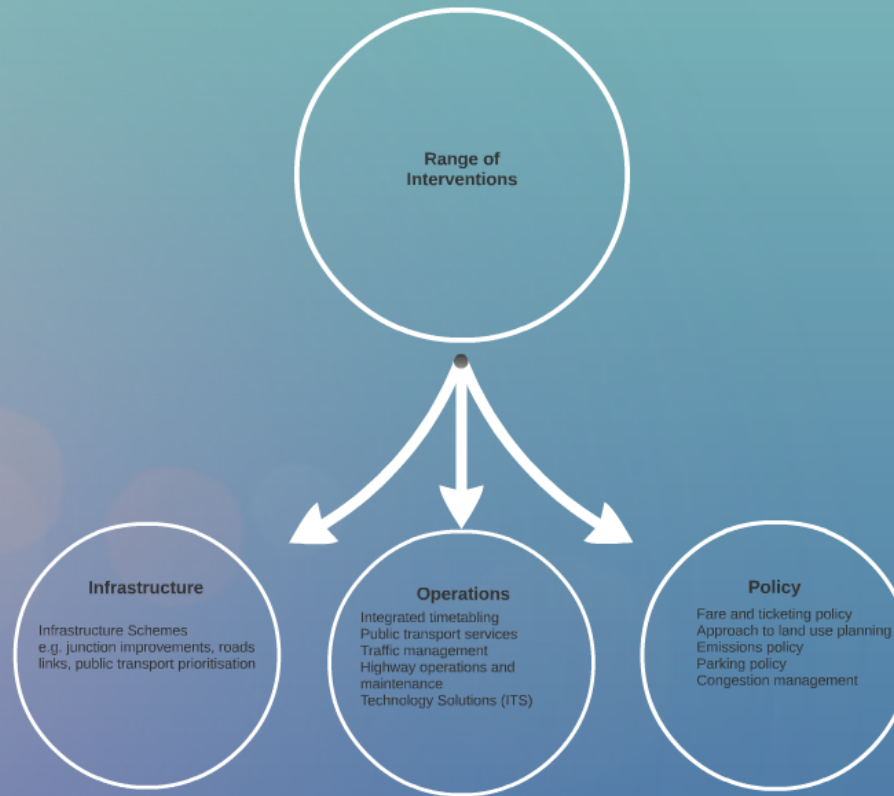
- Scale/Geography;
- Synergies and linkages.

Examples:

Parking management + Enhanced public transport
+ Non-motorised transport = Reduce car
dependency



3. Types of Interventions



Range of Interventions



Infrastructure

Infrastructure Schemes
e.g. junction improvements, roads
links, public transport prioritisation

Operations

Integrated timetabling
Public transport services
Traffic management
Highway operations and
maintenance
Technology Solutions (ITS)

Policy

Fare and ticketing policy
Approach to land use planning
Emissions policy
Parking policy
Congestion management

Range of Interventions

Infrastructure

Infrastructure Schemes

e.g. junction improvements, roads links, public transport prioritisation

Infrastructure

Enhanced Public Transport

-Newer vehicles and amenities



-Enhanced / New routes and services



Public transport supportive infrastructure
e.g. bus lanes (median or kerb)



Shared space for cyclists & pedestrians



Traffic Calming



New Infrastructure (Cars & HGV)



New Bypass/Ring Road



New Grade Separation



Green Transport



Sustainable Urban Freight Transport e.g. electric vans, use of efficient vehicles, consolidation of deliveries



New Off-street Parking

- Newer vehicles and amenities



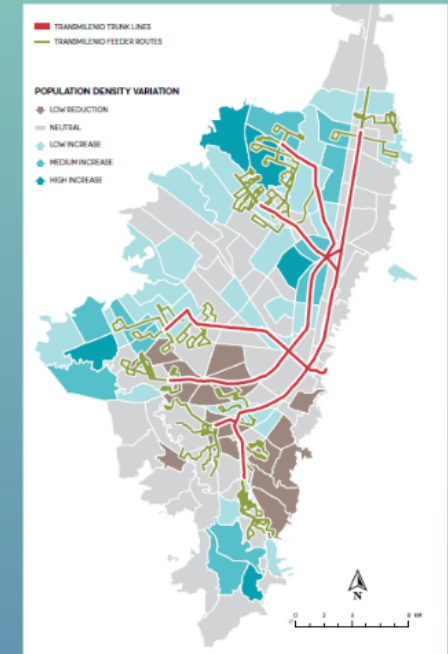
- Enhanced / New routes and services



Before

Rehabilitation of Tramway incl.
OLE, tracks and rolling stock

After



- Public transport-supportive infrastructure
e.g. bus lanes (median or kerb)



-Newer vehicles and amenities



-Public transport-supportive infrastructure
e.g. bus lanes (median or kerb)



enities



-Enhanced / New routes and services

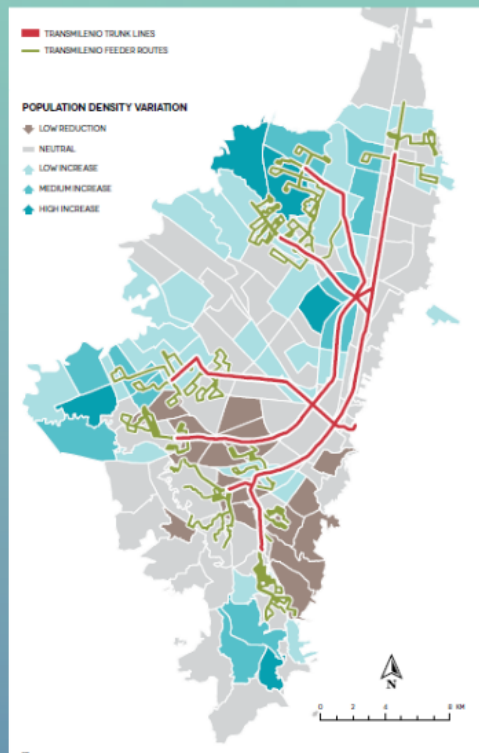


Before

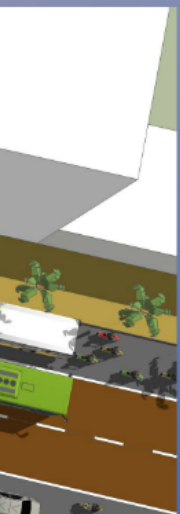


After

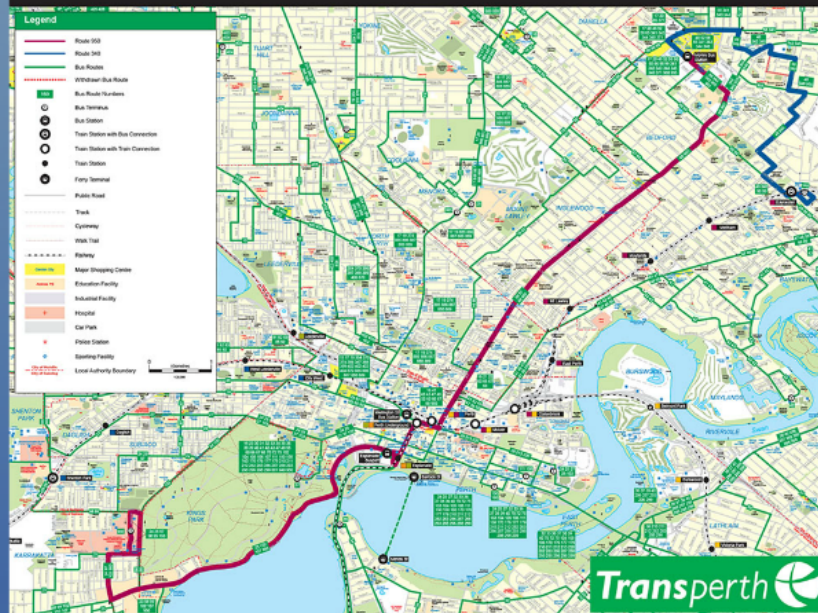
Rehabilitation of Tramway incl.
OLE, tracks and rolling stock



rastructure



Introduction to New Route 950



and services



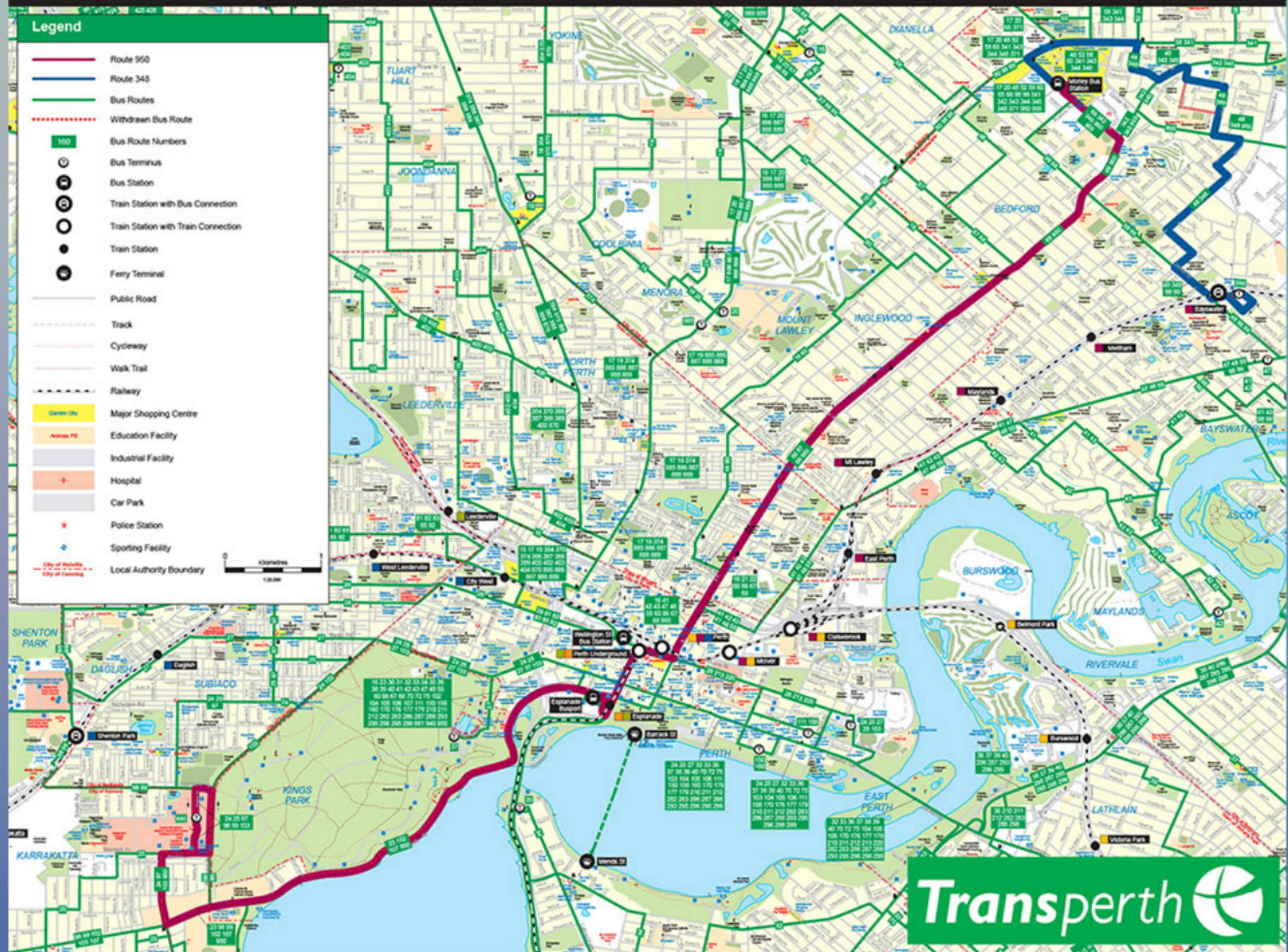
Before



After

Rehabilitation of Tramway incl.
OLE, tracks and rolling stock

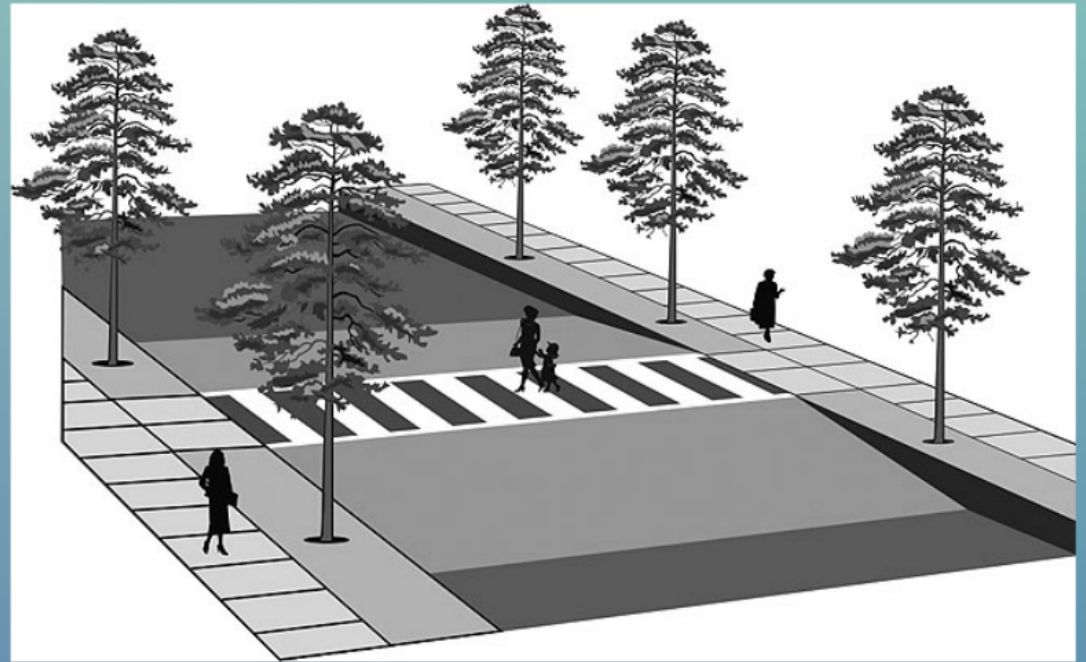
Introduction to New Route 950



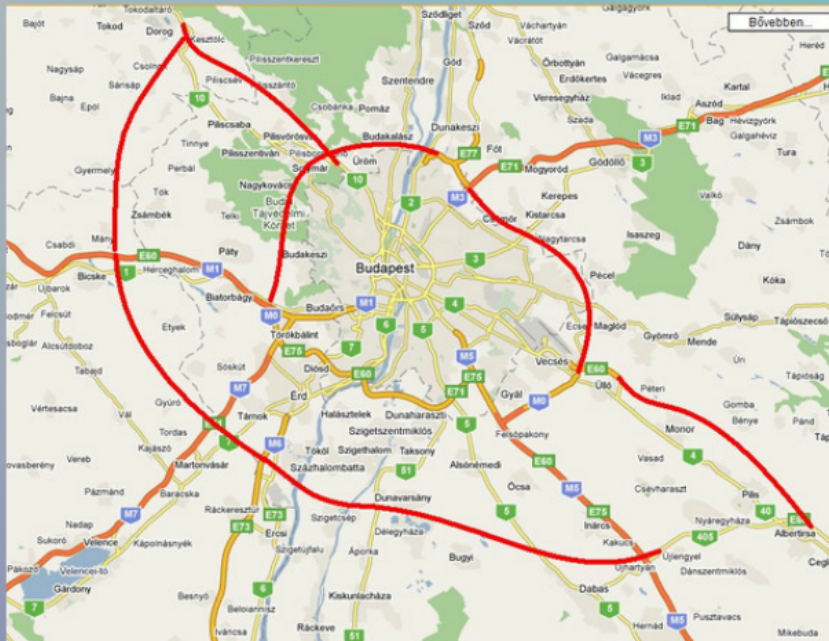
Shared space for cyclists & pedestrians



Traffic Calming



New Infrastructure (Cars & HGV)



New Bypass/Ring Road



New Grade Separation

SlimCity

urban mobility

goods transport

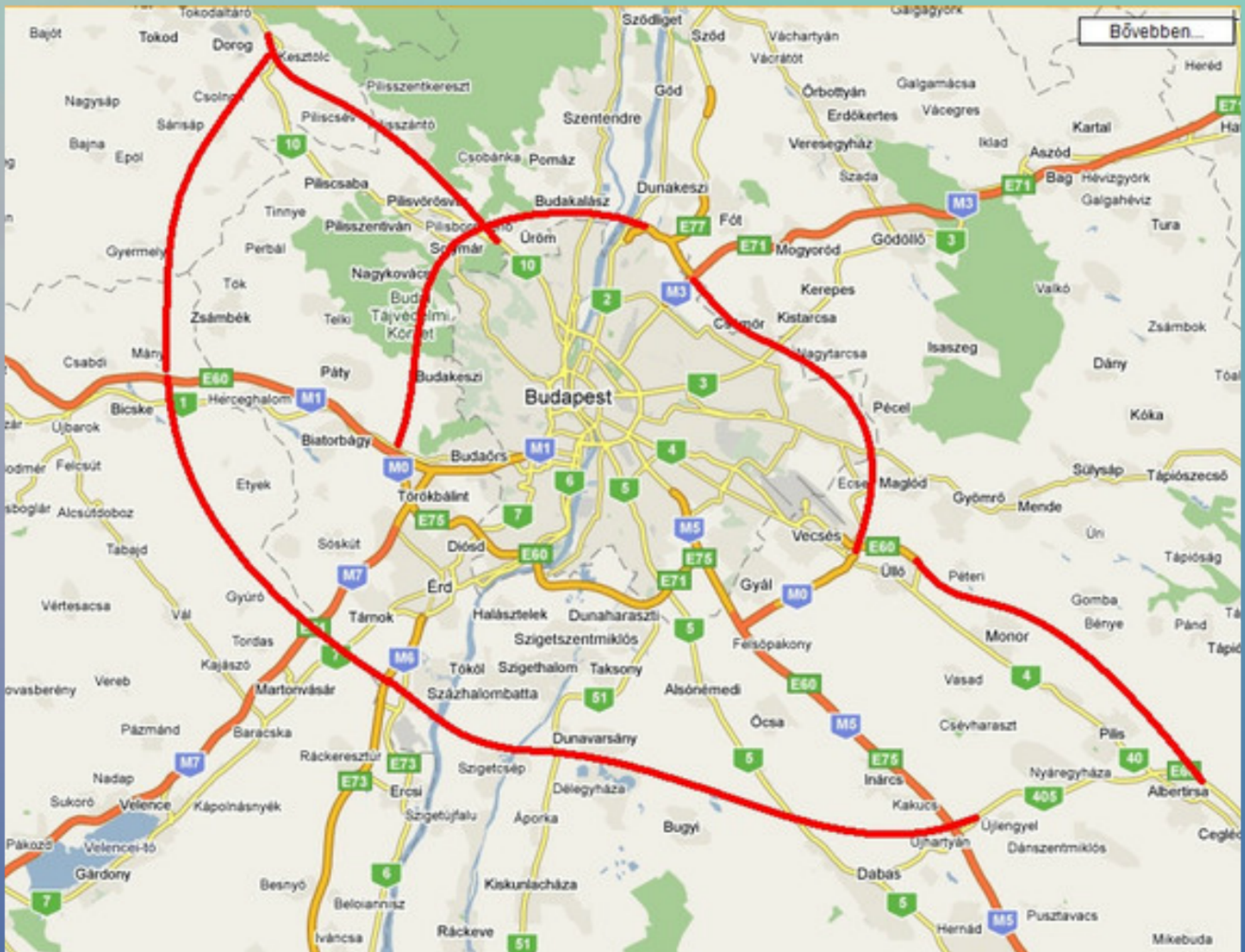


More than 80% of today's road freight trips in European conurbations are of distances below 80 km and can be defined as urban or urban-regional transport.
Source: www.bestufts.net/bestufts2_bp_handbook.html

Sustainable Urban Freight Transport e.g. access restrictions, use of efficient vehicles, consolidation of deliveries



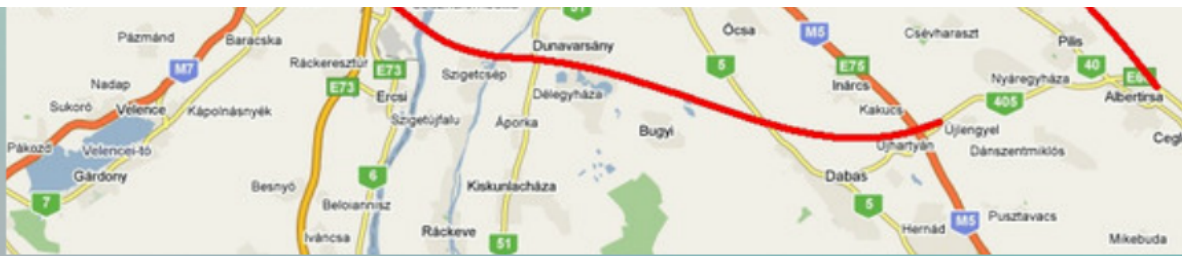
New Off-street Parking



New Bypass/Ring Road



New Grade Separation



New Bypass/Ring Road



New Grad

goods transport



Sustainable Urban Freight Transport e.g. access restrictions, use of efficient vehicles, consolidation of deliveries



ort e.g.

S



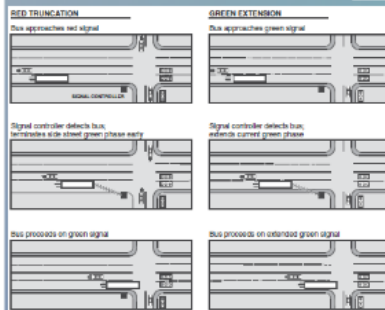
New Off-street Parking

Operations

Integrated timetabling
Public transport services
Traffic management
Highway operations and
maintenance
Technology Solutions (ITS)

Operations

Signal Priority



Traffic / Parking Management and Control



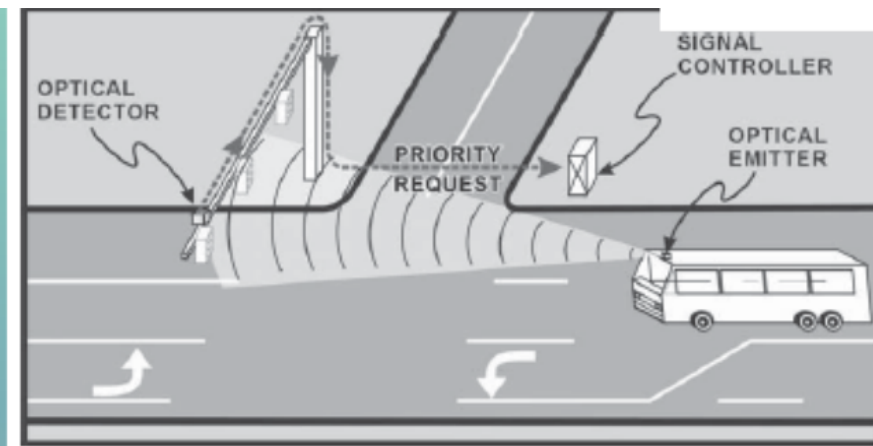
Travel Planning and Passenger Information



E-Ticketing & seamless transfers

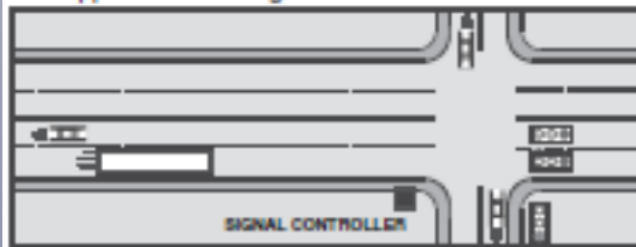


Signal Priority

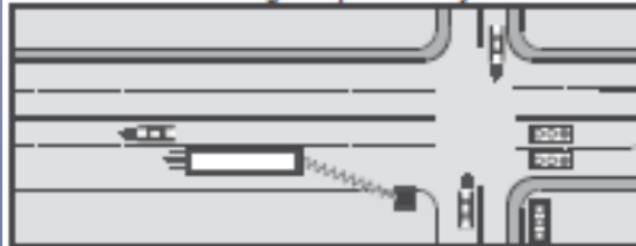


RED TRUNCATION

Bus approaches red signal



Signal controller detects bus;
terminates side street green phase early



Bus proceeds on green signal



GREEN EXTENSION

Bus approaches green signal



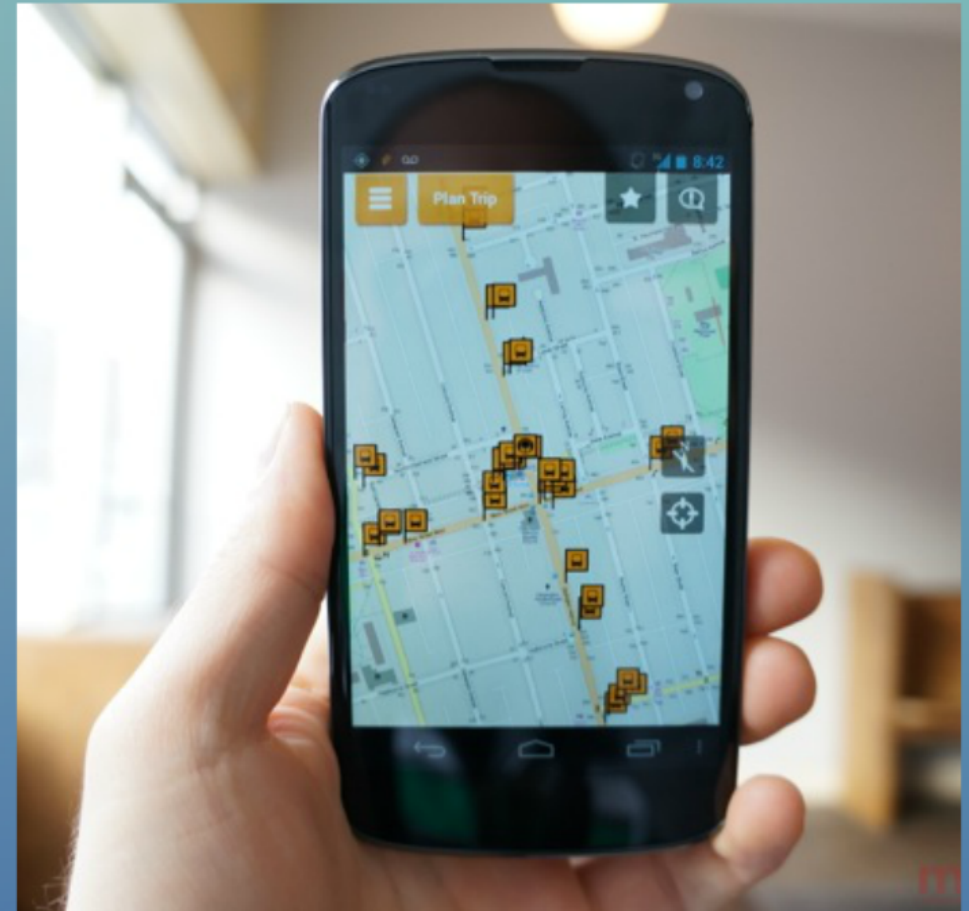
Signal controller detects bus;
extends current green phase



Bus proceeds on extended green signal



Travel Planning and Passenger Information



E-Ticketing & seamless transfers



Traffic / Parking Management and Control



Policy

Fare and ticketing policy
Approach to land use planning
Emissions policy
Parking policy
Congestion management

Policy

Access and Parking Restrictions



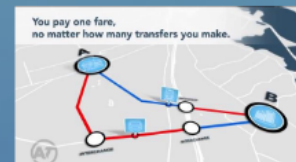
Congestion and Emissions Charges



Freight Restrictions



Public Transport Fare Policy

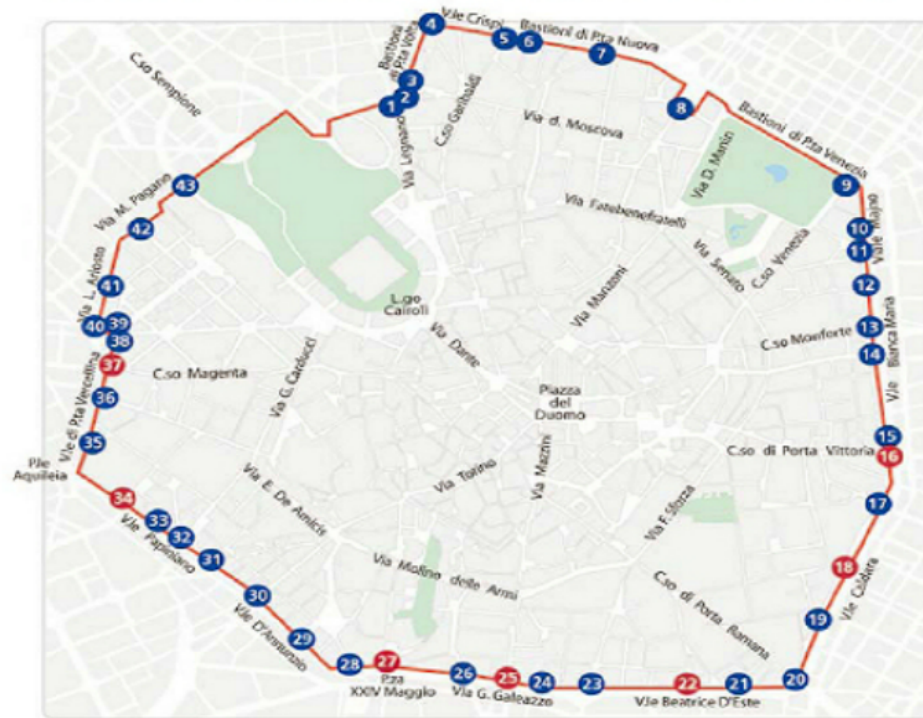


Free / Limited Transfers

	Price per Trip with the Multi-trip Pass	Discount % on the single ticket
Barcelona	0,69 €	45%
Madrid	0,64 €	38%
Brussels	1,10 €	45%
Amsterdam	0,91 €	43%
Paris	1,11 €	26%
Berlin	na	na

Fare Discounts for Frequent Users

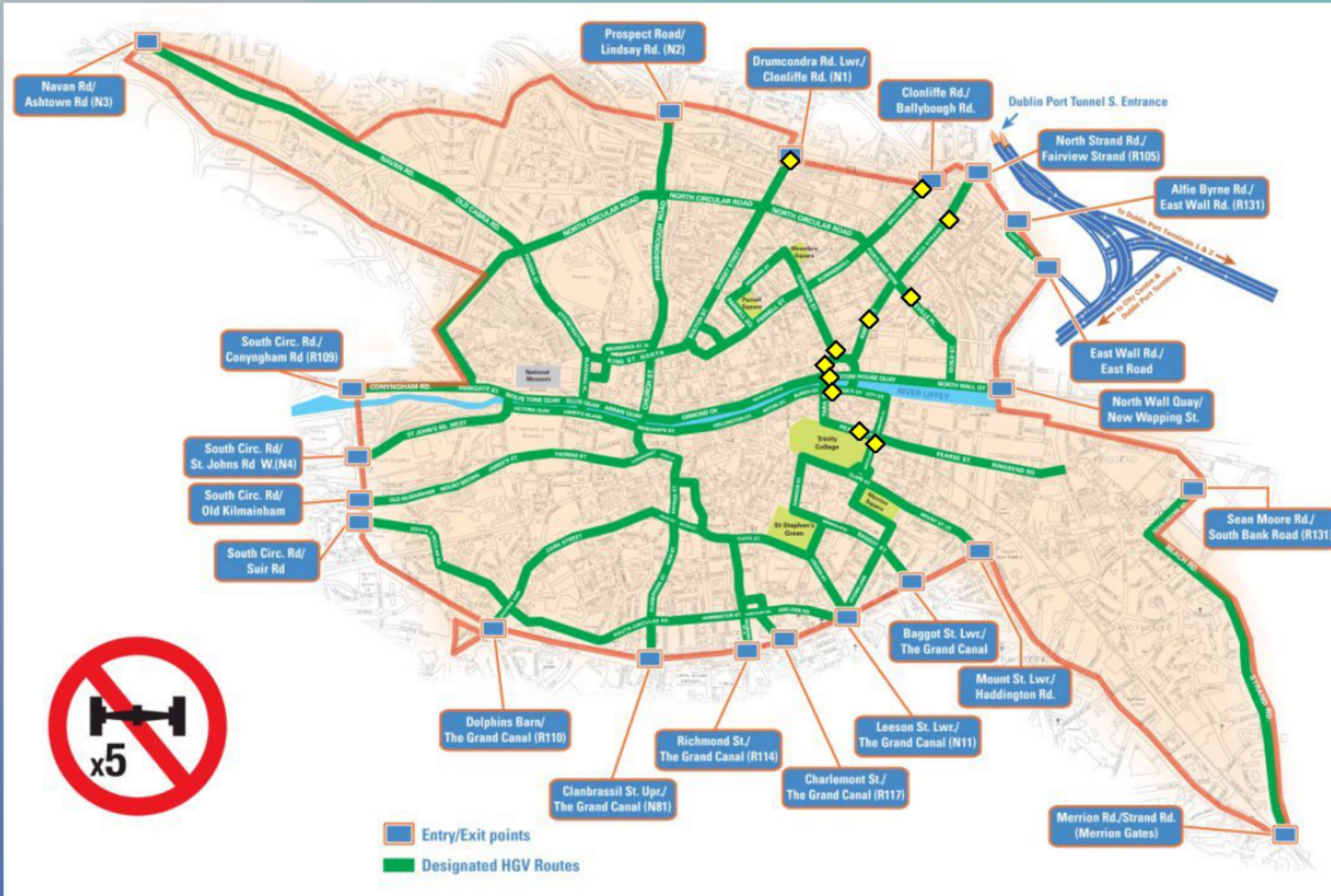
Access and Parking Restrictions



- | | | | |
|-------------------------|---|---------------------------------|---------------------|
| 1 Via Legnano | 12 Via Rossini | 23 Via Bianca di Savoia | 34 Via Olivetani |
| 2 Via di Porta Tenaglia | 13 Corso Monforte | 24 Via Melegnano | 35 Via Bandello |
| 3 Via Moscova | 14 Via Mascagni | 25 Corso Italia | 36 Via San Vittore |
| 4 Via Volta | 15 Corso di Porta Vittoria carr. laterale | 26 Via Aurispa | 37 Corso Magenta |
| 5 Corso Garibaldi | 16 Corso di Porta Vittoria carr. centrale | 27 Corso di Porta Ticinese | 38 Via Boccaccio |
| 6 Via Milazzo | 17 Via Besana | 28 Via Panzeri | 39 Via XX settembre |
| 7 Via Castelfidardo | 18 Via Lamarmora | 29 Via Ronzoni | 40 Via Bazzoni |
| 8 Via Turati | 19 Via Curtatone | 30 Corso di Porta Genova | 41 Via Mascheroni |
| 9 Corso Venezia | 20 Corso di Porta Romana | 31 Via Ausonio | 42 Via Monti |
| 10 Via Baretta | 21 Via Madre Cabrini | 32 Sant'Agostino carr. centrale | 43 Via Milton |
| 11 Via Vitali | 22 Corso di Porta Vigentina | 33 Via Servio Tullio | |

● Key Entrance points reserved for public transport.

Freight Restrictions



Congestion and Emissions Charges



Public Transport Fare Policy

You pay one fare,
no matter how many transfers you make.



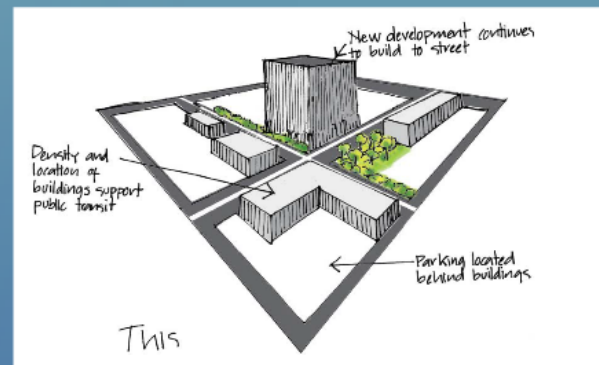
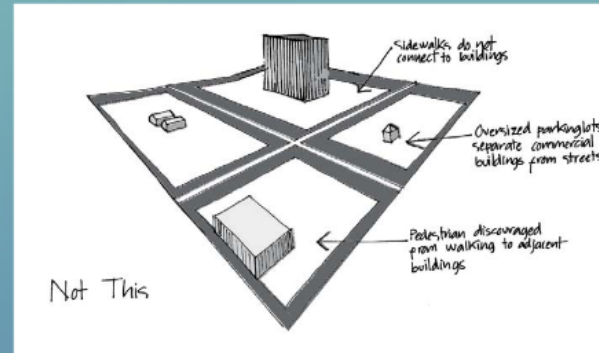
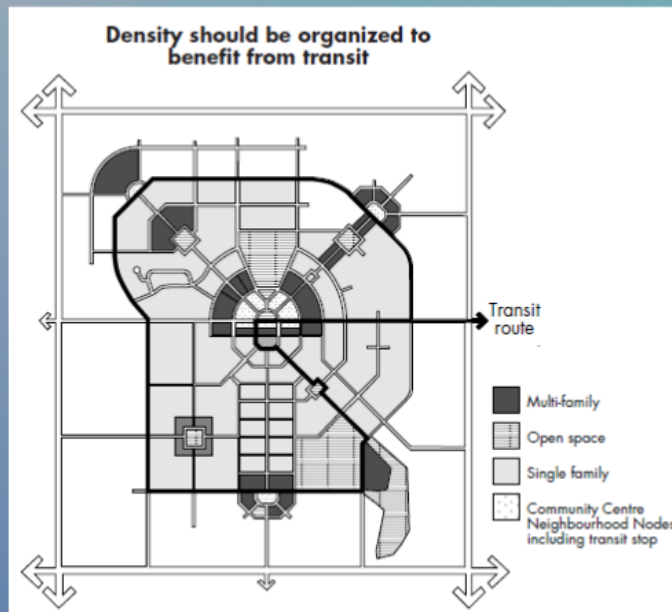
Free / Limited Transfers

	Price per Trip with the Multi- trip Pass	Discount % on the single ticket
Barcelona	0,69 €	45%
Madrid	0.64 €	36%
Brussels	1,10 €	45%
Amsterdam	0.91 €	43%
Paris	1,11 €	26%
Berlin	na	na

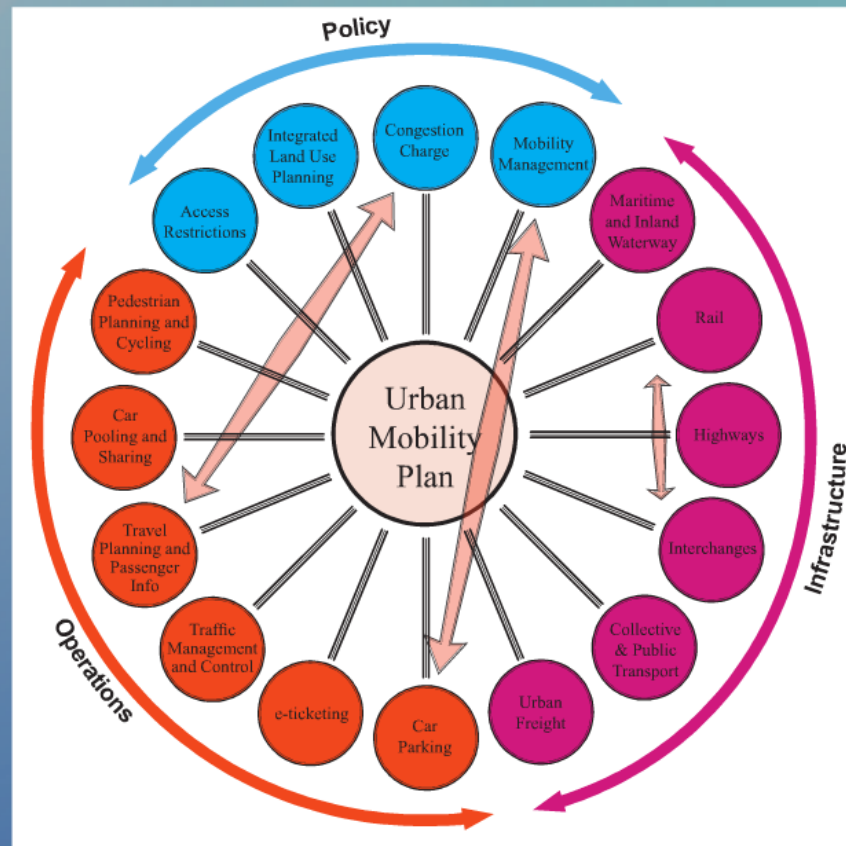
Fare Discounts for Frequent Users

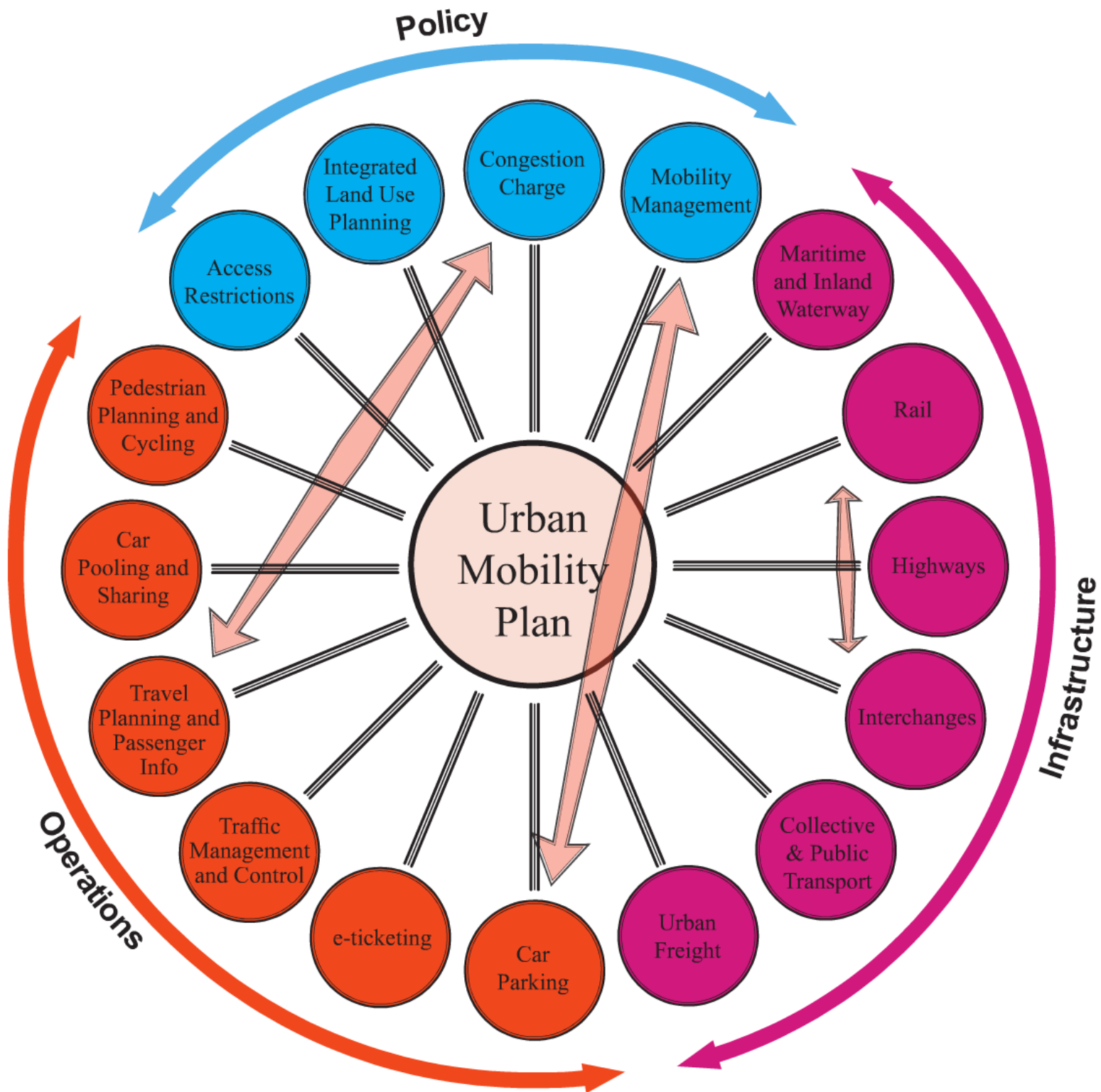
Integrated Land Use Planning

-Mixed Land Use is best
for Public Transport Use



Full Range of Interventions







YouTube

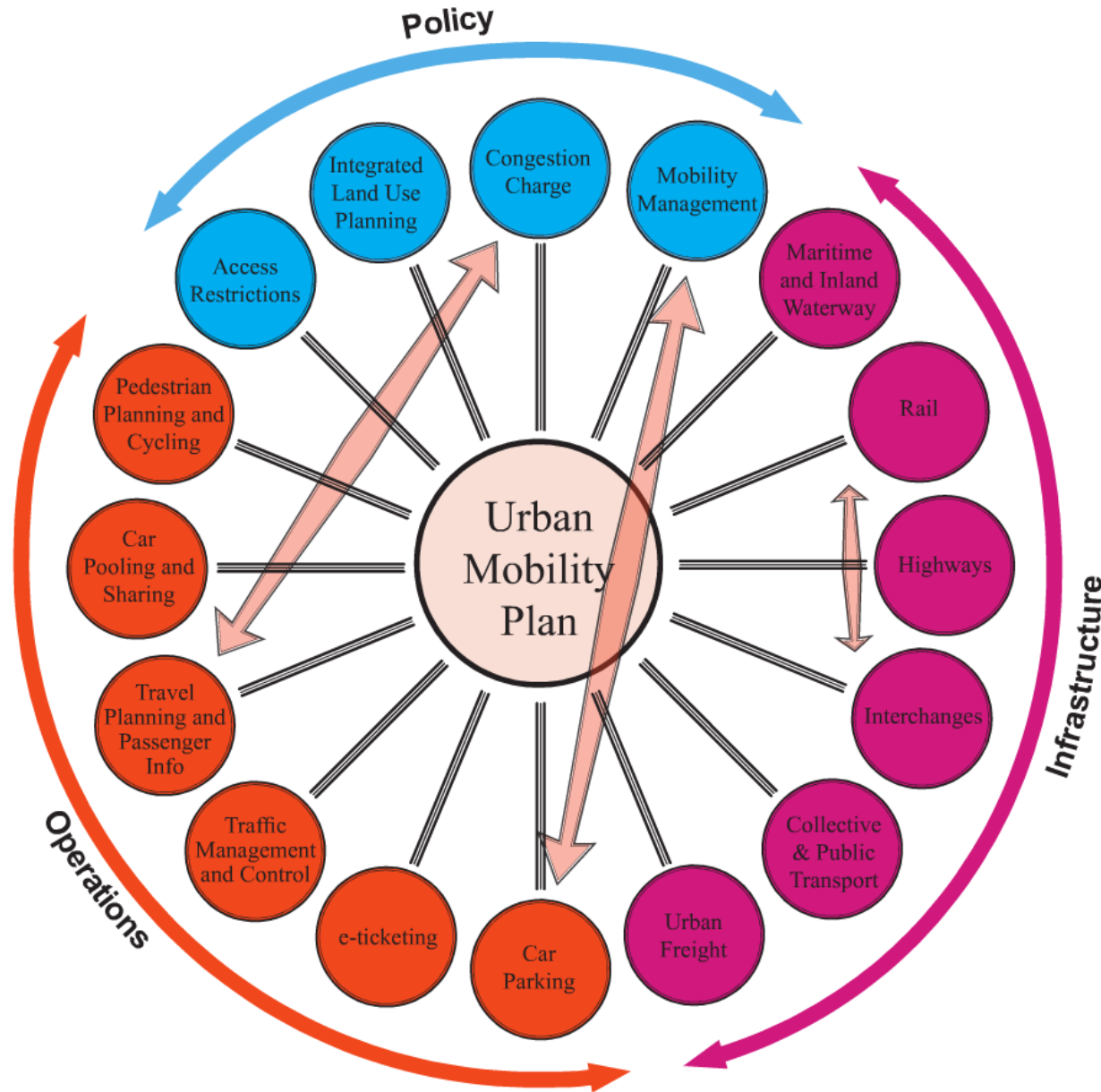
Workshop / Discussion

Looking at the problems identified (Module 1) and the suggested analysis tools (Module 2), what type of interventions might be appropriate?

In your groups:

- Select **at least** two (2) categories of interventions that are relevant to your city;
- Discuss key issues related to each intervention and list **at least** three (3) potential interventions under each category
- Discuss linkages between categories and show links

2. Mobility Plan Interactions and Linkages



Objective

Interactive Session

- Discuss key issues relating to each item on the Mobility Board, listing 3 under each heading
- Discuss linkages between categories, and show links